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## New Myzinin wasps from Turkey (Hymenoptera Tiphidae)

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**Abstract:** Two new species from Turkey are described: *Meria orotaura* and *Poecilotiphia melaena*.

**Key words:** Hymenoptera Tiphidae, new species, Turkey.

### Introduction

Tiphid (sensu antiquo) fauna of Anatolia shows some peculiarities both in distribution and existence of endemic taxa (or better, what so appear on the basis of actual records). It results to be the South Eastern "landmark" for the distribution of *Meria geniculata* (BRULLÉ 1832), *Poecilotiphia parvula* (SMITH 1855), *Pseudotiphia villosa* (FABRICIUS 1793), *Pseudotiphia fulvipennis* (SMITH 1879), and Western "landmark" for *Meria aurantiaca* (GUÉRIN 1837) (with Rhodes island), *Meria ashabadensis* RADOSZKOWSKI 1886, *Tiphia persica* TURNER 1908. Moreover *Silifka fatima* ARGAMAN 1992, *Tiphia bahattini* YILDIRIM & BONI BARTALUCCI 2009, *Tiphia bituberculata* YILDIRIM & BONI BARTALUCCI 2009, *Meria anatolica* BONI BARTALUCCI 2004 and the new species here described, *Meria orotaura* and *Poecilotiphia melaena*, appear so far endemic to this region.

### Abbreviations

**Em<sub>3</sub>** = Metepisternum

**L** = Longitudo (= length)

**LA** = Latitudo (= width)

**m** = medianus (= median)

**p** = posterior (= back)

**P** = Propodeum

**Tsa** = Tuberculum supraantennalis (= above antennal lobes)

About terminology reference has to be made to BASIBUYUK & QUICKE (1999) and BONI BARTALUCCI (2004b).

## Acronyms

MZUF = Museo Zoologico de "La Specola", Firenze

NUZM = Niğde University Zoology Museum

OLML = Oberösterreichisches Landesmuseum, Linz

NBC = Naturalis Biodiversity Center, Leiden

## Description of new species

### *Meria orotaura* nov.sp.

**Material:** Holotypus ♂: Turkey = /TR Niğde Bahceli 1145 m 12.VIII.2011 leg. G.B.Elçin/ NUZM. Paratypes ♂: Turkey = (6) /TR Niğde Bahceli 1145 m 12.VIII.2011 leg. G.B.Elçin/ (5) NUZM (1) MZUF.

### Description.

Male (Holotype). Figs: 1-8. Body size : 14 mm

Black, brown, lemon yellow. Yellow. Most of clypeus; half mandible; two lateral along fore border and one subapical stripe on pronotal disk; rounded spot on the disk of the mesepisternum; apical half of mesosternal lobes; most of tegulae; apical third of femurs; half tibiae; tarsi; apical stripe on 2<sup>nd</sup> to 6<sup>th</sup> terga (2<sup>nd</sup> one with waving anterior edge); irregular transversal stripe on median 7<sup>th</sup> tergum; regular apical stripe with enlarging sideways anterior edge on 1<sup>st</sup> to 6<sup>th</sup> sterna. Brown: tip of mandibles, veins and pterostigma, shadows on the articulation of legs, shadows along metameral borders. Wings hyaline. Hair whitish. Punctuation and hair like in *Meria tripunctata* (ROSSI 1790).

Carina occipitalis complete ventrally. Genal bridge well expressed, its height ¼ oral fossa length; base of hypostoma and genal bridge darkened and opaque, transversally wrinkled and slightly swollen. Stripe of sensilla curvata about 1/3 thickness of the single flagellomeres. Pronotal disk bordered before by a distinct lamellar carina, notched medially. Postscutellar area with a low blunt prominence. Propodeum gently flattened posteriorly permitting to distinguish sub-horizontal from sub-vertical posterior area. Puncture-less and shining fore surface of median femurs. Lateral furrows on 1<sup>st</sup> to 5<sup>th</sup> terga. Gradulus at the base of 2<sup>nd</sup> to 6<sup>th</sup> terga, lacking at the base of 7<sup>th</sup> tergum.

Female unknown.

**Ecology.** *M. orotaura*, feeds on *Eryngium* sp. and *Echinops ritro* and it appears to be common in the same environment (arid rural land with plants as *Secale* sp., *Aegilops* sp.) with *Scolia fallax* and in very hot weather. *M. orotaura* moved slowly on the flowers. It was caught at 11:00-13:00 by netting.

**Derivatio nominis.** From the greek name ορος = mountain and Taurus, the name of the southern mountain ridge of Anatolia where Niğde is situated.

**Variability.** Paratypes poorly vary both in size and coloration (2 have a little spot on supraantennal lobes, 2 do not have spot on mesepisternum). Digitus varies a bit in having more or less tapering tip.

**Note.** It belongs to the Palaearctic group of males with smooth and hairless fore surface of mid femur. From other species it is well distinct by the lacking of any gradulus at

the base of 7<sup>th</sup> tergum (unique in the Palaearctic fauna as far as we know), shape of clypeus, gonosquama, and shaggy volsella throughout. From *M. ashabadensis* RADOSZKOWSKI 1886, it greatly differs also in the shape of pronotum and tighter stripe of sensilla curvata.

***Poecilotiphia melaena* BONI BARTALUCCI nov.sp.**

**Material:** Holotypus ♂: Turkey = /Turkey (Van) 30 km N. Başkale 2700m 11.VII.1987 leg. R.Hensen/NBC.

**Description.**

Male (Holotype). Figs 9-16. Body size: 7,5 mm

Black. Tegulae, veins and pterostigma are semitransparent brown. Legs are blackish brown. Hyaline wings. Brownish hair on the head, whitish elsewhere. Punctuation without peculiar settling.

Clypeus with a distinct median notch on its ventral edge. Ratio between length of oral fossa and genal bridge about 2.8. Suture of the genal bridge like a stitch and the same level with lower genae. Placoids hill defined on last four flagellomeri. 8<sup>th</sup> flagellomeres: ratio  $L/A$  about 1.7. Lateral pronotum with strong concentric wrinkles on its posterior half. Pronotal plate with flattened upper profile in frontal aspect. Postscutellar area abruptly prominent on lateral areas of metanotum and with a distinct low longitudinal "mucrone". Propodeal disk strongly corrugated; posterior area concave and with high transversal wrinkles, one of them well delimits it from disk. Propleurae gently rounded. Also postepimeron and lower lateral propodeum strongly wrinkled. Hind trochanter ventral surface gently rounded, without any carina along its posterior edge. 1<sup>st</sup> tergum somewhat globose. 2<sup>nd</sup> tergal exposed surface (between gradulus and back border) with a ratio  $LA_p/A_m$  about 2.1. 1<sup>st</sup> sternum roughly punctured with very short interspaces. 1<sup>st</sup> to 6<sup>th</sup> tergal and 2<sup>nd</sup> to 6<sup>th</sup> sternal surfaces with a transversal sub apical swelling like a sort of rough gradulus. Lobes of 7<sup>th</sup> tergum with a bit divergent tips; median notch larger than their length.

Genitalia lost.

Female unknown.

**Derivation of name.** From the Greek μέλας (female: μελαίνα) which means dark, black.

**Discussion.** Very close taxon to *P. nigra* RADOSZKOWSKI (1887) and *P. brevicauda* MORAWITZ (1890), whose systematic relations were examined also by GUIGLIA (1963, 1965) and lectotypes with arrangement under *Poecilotiphia* established by GORBATOVSKY (1980, 1981). Here a synoptic table among them:

Characters	<i>P. melaena</i>	<i>P. brevicauda</i>	<i>P. nigra</i>
Head: dorsal outline	Temples rounded in dorsal aspect	Temples rounded in dorsal aspect	Temples sub straight and strongly tapering backward in dorsal aspect
Ratio $L_{oral\ fossa}/L_{genal\ bridge}$	2.3	1.9	2.8
Genal bridge suture	Complanar to genal	Sunken regarding	Complanar to genal

Characters	<i>P. melaena</i>	<i>P. brevicauda</i>	<i>P. nigra</i>
	surfaces	genal surfaces	surfaces
Flagellum	blackish	blackish	brown
Flagellum: placoids	Ill defined, but well detectable on the last 4 elements	Ill defined, well detectable on the last 3 elements	Better defined, well detectable on the last 5 elements
8 <sup>th</sup> flagellomeres: ratio <b>L/A</b>	1.7	1.7	1.3
Hair head	brownish	whitish	whitish
Pronotal fore border	without any carina, but only gently angled	with a distinct low carina, wearing out medially	With regular lamellar carina
Lateral pronotum	many strong concentric wrinkles on postero-lateral corner	no concentric wrinkles	few weak concentric wrinkle
Postscutellar area	prominent with a median blunt spike	even surface	even surface
Metepisternal ( <b>Em</b> <sub>3</sub> ) surface	with strong wrinkles throughout	finely wrinkled throughout	strongly wrinkled but smooth anterior half
Hind trochanter	Not flattened, with gently rounded dorsal surface and back edge	Quite flattened, with smooth flat dorsal surface and keeled back edge	Thick, with smooth flat dorsal surface and keeled back edge
1 <sup>st</sup> tergum:	somewhat globose	more transversal	somewhat globose
2 <sup>nd</sup> tergum: Ratio <b>LA/A</b> from above	2.1	2	2.8
Epipygium:	lobes poorly diverging sideways in dorsal aspect	lobes poorly diverging sideways in dorsal aspect	strongly diverging lobes at about 45° angle to main axis of the body
1 <sup>st</sup> to 6 <sup>th</sup> metameral surfaces	with a sort of rough gradulus along apical borders	Even surface	with a sort of rough gradulus along apical borders

**Figured specimens:** *P. nigra*: figs 17-21 [♂ /USSR Kazakhstan Dzambul env. (115 km) Akkol (Pololuat) 1.6.1980 Z. Padr leg/ /*Meria brevicauda* MOR ♂ Dr. Z.Padr det/ (ll egg 92-93 ex coll. Z. Padr/ MZUF (OLML gift)]; *P brevicauda*: figs 22-26 [♂ /Mongolia- E – 100km W Choibalsna 820m 23.7.2007 M.Halada leg/ MZUF (OLML gift)].

Together with *P. celaena* BONI BARTALUCCI 2012 from Spain, which is close to *P. roussellii* (GUÉRIN 1838), they form a group with spotless black body (apart whitish markings on the legs of *P. nigra* and *P. celaena*).

**Note.** In a previous paper (BONI BARTALUCCI 2001) it was claimed about a rounded hind trochanter of *P. brevicauda* as distinctive character from *P. nigra*. It was a clear mistake which on the other hand does not weaken the fact that we are dealing with two distinct taxa, both of them absolutely pertaining to the genus *Poecilotiphia*.

### **Incerta sedis**

To confirm the complexity of the Myzinin fauna of Turkey, some specimens from eastern area [(6) /Turkey E of Erzurum 2000m 5-6.7.2000 leg M. Halada/ OLML] which look like *P. parvula* (but showing a deep notch between **Tsa** in dorsal aspect, different head in frontal aspect, pronotum in dorsal aspect and tighter lobes of epipygium) were labelled "Prope *P. parvula*". They really appear sympatric and synchronic to Smith's taxon, so hypothetically it could deem they belong to an undescribed species, but it is far wiser to wait for more data.

### **New records**

#### ***Meria geniculata* (BRULLÉ 1832)**

**M a t e r i a l :** ♂ - (2) /TR Niğde Sazlıca 1207m 28.VI.2011 leg. G.B.Elçin/ NUZM; (1) /TR Niğde Sazlıca 1207m 17.VIII.2011 leg. G.B.Elçin/ NUZM;

#### ***Meria aurantiaca* (GUÉRIN 1837)**

**M a t e r i a l :** ♂ - (1) / TR Niğde Altuhnisar 1207m 14.VIII.2011 leg. G.B. Elçin/ NUZM

#### ***Meria ashabadensis* RADOSZKOWSKI 1886**

**M a t e r i a l :** ♂ - (4) /TR Niğde Bahceli 1145 m 12.VIII.2011 leg. G.B.Elçin/ NUZM. (They lack any yellow spot on propodeum)

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### **Zusammenfassung**

Vorliegende Arbeit beschreibt zwei neue Rollwespen (Hymenoptera Tiphidae) aus der Türkei, zudem werden neue Funde weiterer Arten angegeben.

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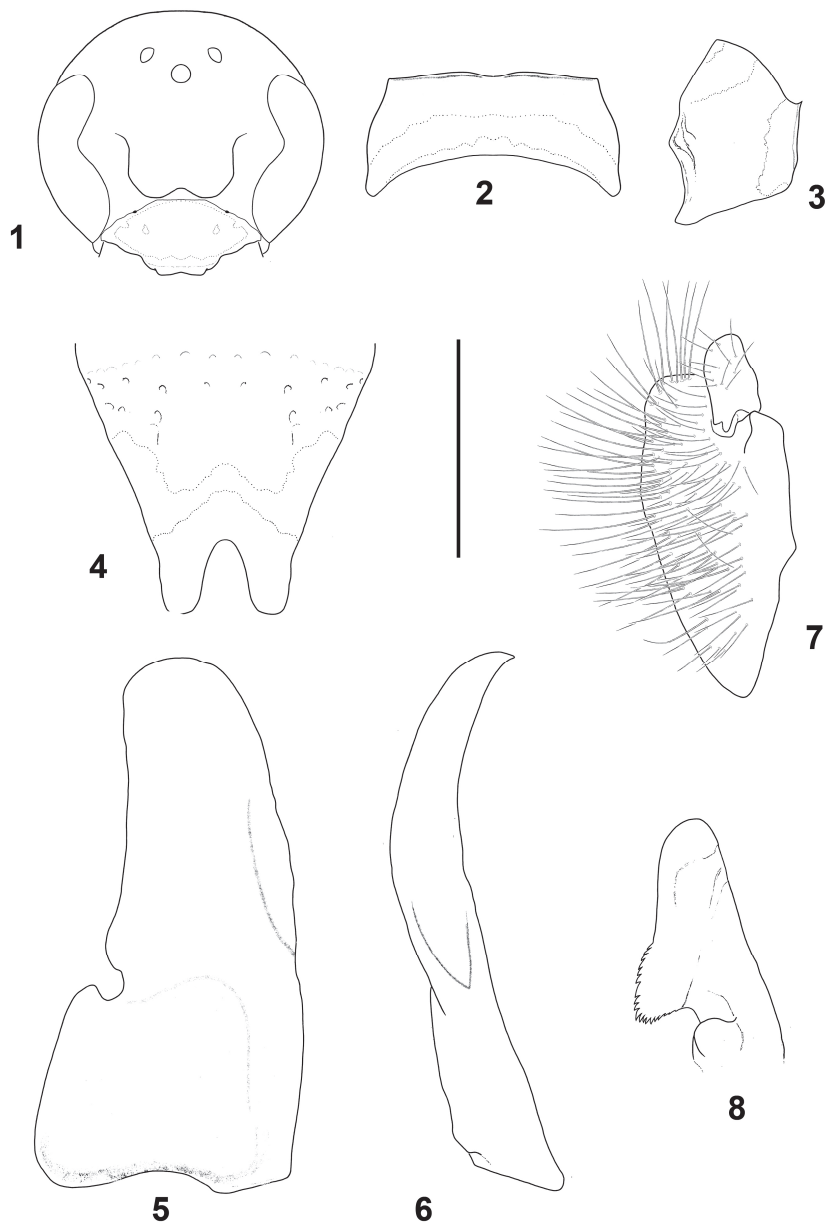
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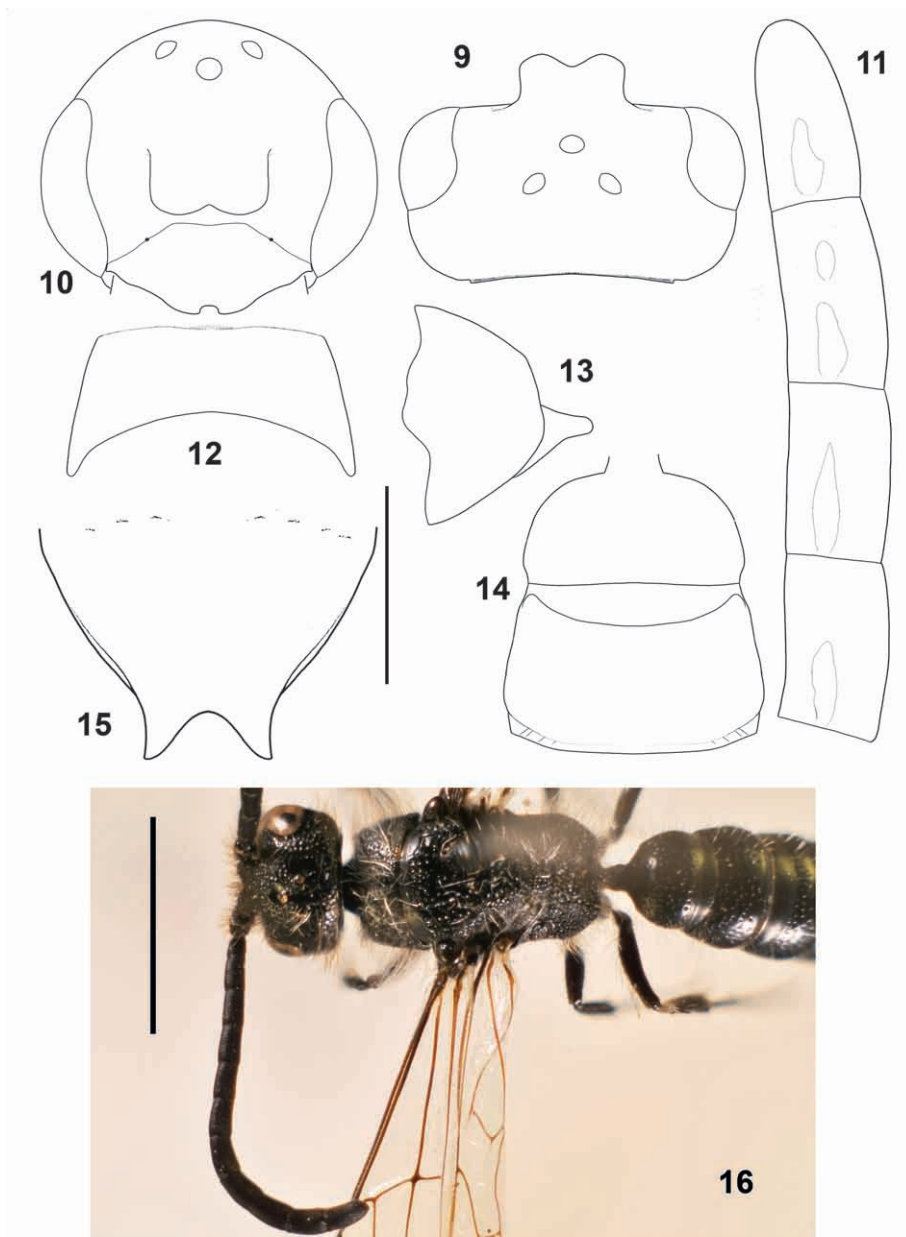
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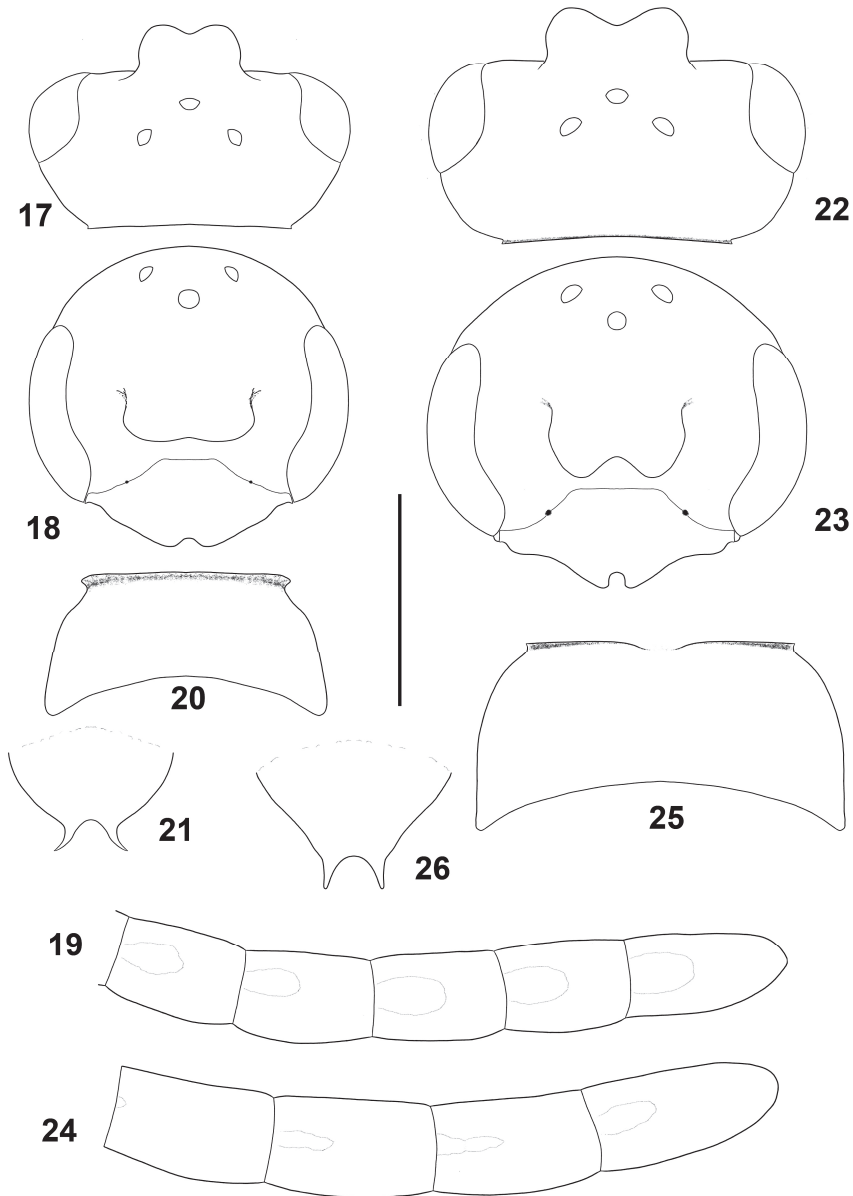


**Figs. 1-8:** *Meria orotaura*, holotype: (1) head, frontal aspect; (2) pronotum, dorsal aspect; (3) pronotum, lateral aspect; (4) 7<sup>th</sup> tergum (epipygium): dorsal aspect; (5) gonosquama, lateral aspect; (6) gonosquama, ventral aspect; (7) volsella, inner aspect; (8) aedeagus, lateral aspect. (figs 1-3: scale bar = 2 mm; fig.4: scale bar = 1 mm; figs 5-8: scale bar = 0.5 mm).



**Figs. 9-16:** *Poecilotiphia melaena*, holotype: (9) head, dorsal aspect; (10) head, frontal aspect; (11) final four flagellomeres; (12) pronotum, dorsal aspect; (13) pronotum, lateral aspect; (14) basal terga, dorsal aspect; (15) 7<sup>th</sup> tergum, dorsal aspect; (16) head and mesosoma. (figs 9, 10, 12, 13, 14: scale bar = 1 mm; figs. 11, 15: scale bar = 0.5mm; fig. 16: scale bar = 2.5 mm).





**Figs. 17-26:** *Poecilotiphia nigra* ♂: (17) head, dorsal aspect; (18) head, frontal aspect; (19) final five flagellomeres; (20) pronotum, dorsal aspect; (21) 7<sup>th</sup> tergum, dorsal aspect. *Poecilotiphia brevicauda* ♂: (22) head, dorsal aspect; (23) head, frontal aspect; (24) final four flagellomeres; (25) pronotum, dorsal aspect; (26) 7<sup>th</sup> tergum, dorsal aspect. (figs 17, 18, 20, 21, 22, 23, 25, 26: scale bar = 1 mm; figs. 19, 24: scale bar = 0.5mm).